AMENDMENT TO THE CLAIMS

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for removing paint from a painted plastic ~~parts~~ part which comprises treating the painted plastic part at a temperature and for a time sufficient to remove the paint therefrom with a solvent mixture agitated by ultrasonic energy, wherein the solvent mixture is comprised of a high-boiling aprotic polar organic solvent and a pH adjuster, wherein the solvent is at least one selected from the group consisting of N-methyl pyrrolidone, N-hydroxyethyl pyrrolidone, N-cyclohexyl pyrrolidone, N-ethyl pyrrolidone, 1 5-dimethyl piperidone, 1 ,3-dimethyl piperidone, and 1 ,3-dimethyl-2- imidazolidinone and mixtures thereof.

2. (Original) The method of claim 1 wherein the pH adjuster is an aqueous mineral acid.

3. (Withdrawn) The method of claim 1 wherein the pH adjuster is a tetraalkyl ammonium hydroxide.

4. (Currently Amended) A method for removing paint from a painted plastic part which comprises treating the painted plastic part at a temperature and for a time sufficient to remove the paint therefrom with a solvent mixture agitated by ultrasonic energy, wherein the solvent mixture is comprised of a high-boiling pyrrolidone or piperidone lactams solvent which is at least one selected from the group consisting of N-methyl pyrrolidone, N-hydroxyethyl pyrrolidone, N-cyclohexyl pyrrolidone, N-ethyl pyrrolidone, 1 5-dimethyl piperidone, 1 ,3-dimethyl piperidone, and 1 ,3-dimethyl-2-imidazolidinone and mixtures thereof, and an aqueous mineral acid.

5. (Currently Amended) A method for removing paint from a painted plastic part which comprises treating the painted plastic part at a temperature and for a time

sufficient to remove the paint therefrom with a solvent mixture agitated by ultrasonic energy, wherein the solvent mixture is comprised of hydrochloric acid and a solvent selected from the group of dimethylsulfoxide, dimethylacetamide, dimethylformamide and a terpene liquid.

6. (Currently Amended) A method for removing paint from a painted plastic part which comprises treating the painted plastic part at a temperature and for a time sufficient to remove the paint therefrom with a solvent mixture agitated by ultrasonic energy, wherein the solvent mixture is comprised of a high-boiling pyrrolidone or piperidone lactams solvent which is at least one selected from the group consisting of N-methyl pyrrolidone, N-hydroxyethyl pyrrolidone, N-cyclohexyl pyrrolidone, N-ethyl pyrrolidone, 1 5-dimethyl piperidone, 1 ,3-dimethyl piperidone, and 1 ,3-dimethyl-2-imidazolidinone and mixtures thereof, and a tetraalkyl ammonium hydroxide.

7. (Currently Amended) A method for removing paint from a painted plastic part which comprises treating the painted plastic part at a temperature and for a time sufficient to remove the paint therefrom with a solvent mixture agitated by ultrasonic energy, wherein the solvent mixture is comprised of a tetraalkyl ammonium hydroxide and a solvent selected from the group of dimethylsulfoxide, dimethylacetamide, dimethylformamide and a terpene liquid.

8. (Cancelled)

9. (Original) The method of claim 1 wherein the painted part is comminuted.

10. (Original) The method of claim 1 wherein the painted part is kept intact.

11. (Previously Presented) The method of claim 9 wherein the comminuted painted part is stirred in the solvent mixture.

12. (Cancelled)

13. (Currently Amended) A method for removing paint from a painted plastic part which comprises treating the painted plastic part with a solvent mixture agitated by ultrasonic energy, wherein the solvent mixture is comprised of N-methyl pyrrolidone and a pH adjuster.

14. (Previously Presented) The method of claim 2 or 13 wherein the pH adjuster is an acid ~~is~~ selected from the group consisting of hydrochloric, sulfuric and phosphoric acid.

15. (Original) The method of claim 14 wherein the acid is hydrochloric acid.

16. (Currently Amended) The method of ~~claim 15~~ claim 14 wherein the ~~acid~~ pH adjuster is a solution comprised of ~~36-37%~~ hydrochloric acid.

17. (Currently Amendedl) The method of ~~claim 8~~ claim 1 wherein the ultrasonic energy is applied at a frequency of about 25 kHz.

18. (Original) The method of claim 1 which is carried out at a temperature of from about 40^0C to about 150^0C.

19. (Previously Presented) The method of claim 1 which is carried out at a temperature of from about 70^0C to about 90^0C.

20. (Previously Presented) The method of claim 1 wherein the painted plastic part is formed of nylon.

21. (Previously Presented) The method of claim 1 wherein the painted plastic part is formed of thermoplastic polyolefin.

22. (Previously Presented) The method of claim 1 wherein the painted plastic part is formed of acrylonitrile-butadiene-styrene.

23. (Previously Presented) A method of removing automotive paint systems from reject plastic parts which comprises the steps of

a) immersing the parts in a solvent mixture comprised of a high-boiling aprotic polar organic solvent which is at least one selected from the group consisting of N-methyl pyrrolidone, N-hydroxyethyl pyrrolidone, N-cyclohexyl pyrrolidone, N-ethyl pyrrolidone, 1 5-dimethyl piperidone, 1 ,3-dimethyl piperidone, and 1 ,3-dimethyl-2-imidazolidinone and mixtures thereof at a temperature of about 70 – 90^0C;

b) applying ultrasonic energy to the immersed parts in the solvent mixture at a frequency of about 25 kHz for about 30 — 40 minutes sufficient to remove the automotive paint systems from the parts;

c) ~~b)~~ rinsing the parts with water one or more times; and

d) ~~c)~~ drying the parts.

24. (Currently Amended) A method of removing automotive paint systems from waste plastic parts which have been comminuted into plastic chips which comprises the steps of:

a) immersing the plastic chips in a solvent mixture comprised of a high-boiling aprotic polar organic solvent which is at least one selected from the group consisting of N-methyl pyrrolidone, N-hydroxyethyl pyrrolidone, N-cyclohexyl pyrrolidone, N-ethyl pyrrolidone, 1 5-dimethyl piperidone, 1 ,3-dimethyl piperidone, and 1 ,3-dimethyl-2- imidazolidinone and mixtures thereof;

b) mixing the immersed plastic chips in the solvent mixture for ~~from~~ about 15 minutes to about 2 hours at a temperature between about 70 – 90^0C sufficient to remove the automotive paint systems from the plastic chips;

c) applying ultrasonic energy to the solvent mixture and immersed plastic chips;

d) ~~c)~~ separating the automotive paint systems from the plastic chips and the solvent mixture;

e) ~~d)~~ rinsing the plastic chips; and

f) ~~e)~~ drying the plastic chips.

25 – 35. (Cancelled)

36. (Currently Amended) A method for removing paint from a painted plastic part which comprises treating the painted plastic part at a temperature and for a time sufficient to remove the paint therefrom with a solvent mixture agitated by ultrasonic energy, wherein the solvent mixture is comprised of a high-boiling pyrrolidone or piperidone lactam solvent which is at least one selected from the group consisting of N-methyl pyrrolidone, N-hydroxyethyl pyrrolidone, N-cyclohexyl pyrrolidone, N-ethyl pyrrolidone, 1 5-dimethyl piperidone, 1 ,3-dimethyl piperidone, and 1 ,3-dimethyl-2-imidazolidinone and mixtures thereof, a surfactant and an aqueous mineral acid.

37. (Previously Presented) The method of claim 36 wherein the surfactant is an alcohol alkoxylate phosphate ester or a non-linear alcohol alkoxylate.

38 – 39. (Cancelled)